

REMARKS/DISCUSSION OF ISSUES

By this Amendment, Applicants amend the specification to more clearly identify the patent application whose subject matter is incorporated therein

Claims 1-30 are pending in the application.

Applicants thank the Examiner for acknowledging that the drawings are acceptable.

Reexamination and reconsideration are respectfully requested in view of the following Remarks.

35 U.S.C. §§ 102 and 103

The Office Action rejects: claims 1-8, 12-22, 25 and 26 under 35 U.S.C. § 102 over Harvey U.S. Patent 5,249,259 ("Harvey"); claims 1, 8-11, 17-19, 21, 23 and 24 under 35 U.S.C. § 102 over Shibata et al. U.S. Patent Publication 2002/0027653 ("Shibata"); claims 17, 18 and 27 under 35 U.S.C. § 102 over Ganz et al. U.S. Patent Publication 2004/0105575 ("Ganz"); claims 18 and 30 under 35 U.S.C. § 103 over Ganz in view of Parker et al. U.S. Patent 5,533,139 ("Parker"); and claims 28 and 29 under 35 U.S.C. § 103 over Shibata in view of Rao et al. U.S. Patent 6,834,117 ("Rao") and McKee, Jr. et al. U.S. Patent 5,311,568 ("McKee").

Applicants respectfully traverse all of these rejections for at least the following reasons.

("Harvey")

Claim 1

Among other things, the method of claim 1 includes the combination of receiving first image data representing an object, the first image data being produced using an image parameter, and modifying the image parameter to a modified image parameter.

Applicants respectfully submit that Harvey does not disclose a method which includes this combination of features.

The Office Action cites FIG. 1 of Harvey and the accompanying text at col. 3, lines 20-25 as supposedly disclosing these features.

Applicants respectfully disagree.

At the outset, from inspection of FIG. 1 of Harvey it is apparent that Harvey does not provide any feedback mechanism for modifying an image parameter used to produce the image data. In FIG. 1 of Harvey, the image data is designated by the box labeled 16. Nothing in FIG. 1 of Harvey modifies any parameter used to produce the image data 16. For example, digitizer 18 digitizes the image data 16 but it does not produce the image data 16. Locate/focus/adjust unit 20 provides "control" to digitizer 18 (whatever that means), but it does not modify any image parameter used to produce image data 16.

Accordingly, for at least these reasons, Applicants respectfully submit that claim 1 is patentable over Harvey.

Claims 2-8

Claims 2-8 depend from claim 1 and are deemed patentable over Harvey for at least the reasons set forth above with respect to claim 1, and for the following additional reasons.

Claim 2

Among other things, in the method of claim 2, the image parameter is an image acquisition parameter.

Applicants respectfully submit that Harvey does not disclose this feature.

The Office Action states that "*focus is an image acquisition parameter.*"

Not in Harvey it isn't. Harvey teaches that locate/focus/adjust unit 20 "locates patterns within the input image data 16". That is, while locate/focus/adjust unit 20 may adjust which part of the image data should be "focused" upon for digitization by the digitizer 18, it certainly does not change any parameter by which image data 16 is acquired (this is also clear from inspection of FIG. 1).

Accordingly, for at least this additional reason, Applicants respectfully submit that claim 2 is patentable over Harvey.

Claim 3

Among other things, the method of claim 3 includes processing the first image data to calculate the parameter modification information for the image

acquisition parameter.

Applicants respectfully submit that Harvey does not disclose this feature.

The Office Action states that *"the classifier module processes the image data"* and *"the locate/focus/adjust unit modifies digitizer setting based on feedback from the classifier."*

At the outset, the classifier module 14 does not even receive the image data . . . instead it receives pattern size and edge strength data from blocks 10 and 12 and the "Pattern Size" block. Furthermore, the Office Action does not make any mention of the "calculation" specifically recited in claim 3. Also, Applicants see nothing in Harvey that discloses that any "digitizer setting" is modified – Harvey just teaches that locate/focus/adjust unit 20 provides "control" to digitizer 18 – which could be something as simple as turning it on and off.

Accordingly, for at least this additional reason, Applicants respectfully submit that claim 3 is patentable over Harvey.

Claim 5

The Office Action does not really even bother to cite anything in Harvey that discloses the actually features specifically recited in claim 5 (e.g., "determining an incorrect classification of at least one feature of the object based on the first image data; "calculating the parameter modification information to correct the incorrect classification").

Accordingly, for at least this additional reason, Applicants respectfully submit that claim 5 is very clearly patentable over Harvey.

Claim 6

The Office Action states that "modifying the focus would affect the raw image."

Applicants respectfully disagree. It is abundantly clear from a simple inspection of FIG. 1 that locate/focus/adjust unit 20 has absolutely ZERO effect on image data 16.

Furthermore, Harvey only teaches that locate/focus/adjust unit 20 locates patterns within the image data. Even if it adjusts some focus (Harvey really only

teaches that it "controls" a digitizer) it is apparent that it is only adjusting which part of the image data should be "focused" upon for digitization by the digitizer 18. Again, this has absolutely **ZERO** effect on the "raw" image data 16.

Accordingly, for at least this additional reason, Applicants respectfully submit that claim 6 is very clearly patentable over Harvey.

Claim 7

Again, as mentioned above, Harvey only teaches that locate/focus/adjust unit 20 locates patterns within the image data. Even if it adjusts some focus (Harvey really only teaches that it "controls" a digitizer) it is apparent that it is only adjusting which part of the image data should be "focused" upon for digitization by the digitizer 18.

Contrary to the Office Action, this has no "effect" on a resolution parameter.

Accordingly, for at least this additional reason, Applicants respectfully submit that claim 7 is very clearly patentable over Harvey.

Claim 12

Among other things, the method of claim 12 includes setting at least one image acquisition parameter to capture a first image of the object, and modifying the image acquisition parameter based on the parameter modification information to capture a second image of the object.

For similar reasons to those set forth above with respect to claim 1, Applicants respectfully submit that Harvey does not disclose any method including this combination of features.

Claims 13-16

Claims 13-16 depend from claim 12 and are deemed patentable over Harvey for at least the reasons set forth above with respect to claim 12, and, variously, for similar reasons to those set forth above with respect to claims 2, 3 and 5-7.

Claim 17

Among other things, in the system of claim 17 a processor is connected to receive first image data representing an object, the first image data being produced using an image parameter, and the processor is operable to determine parameter

modification information for the image parameter from the first image data.

As explained above with respect to claim 1, it is apparent from FIG. 1 of Harvey that Harvey does not determine anything about any image parameter that is used to produce the image data 16.

Accordingly, for at least these reasons, Applicants respectfully submit that claim 17 is patentable over Harvey.

Claims 18-22, 25 and 26

Claims 18-22, 25 and 26 all depend from claim 17 and are deemed patentable over Harvey for at least the reasons set forth above with respect to claim 17, and for the following additional reasons.

Claims 18, 25 and 26

Among other things, the system of claim 18 includes a sensor disposed in relation to the object to receive illumination projected from the object.

The Office Action cites Harvey's digitizer 18 as supposedly corresponding to the recited sensor

It is apparent that a digitizer does not receive any illumination from an object.

Accordingly, for at least this additional reason, Applicants respectfully submit that claims 18, 25 and 26 are all very clearly patentable over Harvey.

Claim 21

Claim 21 is also deemed patentable over Harvey for at least the reasons set forth above with respect to claim 5.

(“Shibata”)

Claim 1

Among other things, the method of claim 1 includes the combination of receiving first image data representing an object, the first image data being produced using an image parameter, and modifying the image parameter to a modified image parameter.

Applicants respectfully submit that Shibata does not disclose a method which includes this combination of features.

The Office Action states that Shibata generates an “inspection recipe” and

uses the inspection recipe to perform an inspection, and that somehow this corresponds to the method of claim 1.

Applicants respectfully disagree.

Shibata discloses a process of adjusting sensitivities and thresholds for evaluating defects in chips from image data.

Shibata does not disclose that any **image parameter used to produce the image data** is adjusted in any way. Indeed, the Office Action fails to identify even a single image parameter that is supposedly adjusted in Shibata.

Accordingly, for at least these reasons, Applicants respectfully submit that claim 1 is patentable over Shibata.

Claims 8-11

Claims 8-11 depend from claim 1 and are deemed patentable over Shibata for at least the reasons set forth above with respect to claim 1. Also, with respect to claim 9, it is readily apparent that a "threshold value" for detection of a defect is not an **image parameter used to produce the image data**.

Claim 17

Among other things, in the system of claim 17 a processor is connected to receive first image data representing an object, the first image data being produced using an image parameter, and the processor is operable to determine parameter modification information for the image parameter from the first image data.

As explained above with respect to claim 1, Shibata does not determine anything about any **image parameter that is used to produce the image data**.

Accordingly, for at least these reasons, Applicants respectfully submit that claim 17 is patentable over Shibata.

Claims 18, 19, 21 and 23

Claims 18, 19, 21 and 23 depend from claim 17 and are deemed patentable over Shibata for at least the reasons set forth above with respect to claim 17.

("Ganz")

Claim 17

Among other things, in the system of claim 17 a processor is connected to

receive first image data representing an object, the first image data being produced using an image parameter, and the processor is operable to determine parameter modification information for the image parameter from the first image data.

The Office Action states that Ganz discloses in paragraph [0066] that computer 105 uses feedback to adjust the focus of focus lens 165.

Applicants respectfully submit that Ganz plainly teaches that computer 105 is controlled by inputs from an operator (see paragraphs [0060] and [0061]).

Nothing in paragraph [0066] of Ganz discloses or suggests that the focus of lens 165 is adjusted by the processor processing any "first image data." Indeed, it seems evident from Ganz contemplates that lens 165 has a predetermined focus and so the requisite position of moving plate 162 to place the drop at the focal length of lens 165 is known *a priori*.

Claims 18 and 27

Claims 18 and 27 depend from claim 17 and are deemed patentable over Ganz for at least the reasons set forth above with respect to claim 17

("Ganz and Parker")

Claims 28 and 30

Claims 28 and 30 depend from claim 17. Applicants respectfully submit that Parker does not remedy the defects of Ganz as set forth above with respect to claim 17. Therefore, at this time the propriety of the proposed combination of Ganz and Parker is deemed to be a moot point.

Accordingly, for at least these reasons, Applicants respectfully submit that claims 28 and 30 are patentable over any possible combination of Ganz and Parker.

("Shibata, Rao and McKee")

Claims 28 and 29

Claims 28 and 29 depend from claim 17. Applicants respectfully submit that Rao and McKee do not remedy the defects of Ganz as set forth above with respect to claim 17. Therefore, at this time the propriety of the proposed combination of Ganz, Rao and McKee is deemed to be a moot point.

Accordingly, for at least these reasons, Applicants respectfully submit that

claims 28 and 30 are patentable over any possible combination of Ganz, Rao and McKee.

CONCLUSION

In view of the foregoing explanations, Applicants respectfully request that the Examiner reconsider and reexamine the present application, allow claims 1-30 and pass the application to issue. In the event that there are any outstanding matters remaining in the present application, the Examiner is invited to contact Kenneth D. Springer (Reg. No. 39,843) at (571) 283.0720 to discuss these matters.

Respectfully submitted,

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